

8 DEVICE FOR ROTATABLY POSITIONING A CAMERA OR SIMILAR ARTICLE

9 ABOUT TWO ORTHOGONAL AXES

10 ABSTRACT OF THE DISCLOSURE

11 A positioning device is provided for rotatably positioning a camera or other
12 article about orthogonal rotational axes. The positioning device includes a carriage
13 supported for rotation about a horizontal axis by a yoke. The yoke is in turn rotatably
14 coupled to a base assembly for rotation of the yoke about a vertical axis. Rotation of the
15 camera about the horizontal and vertical axes is respectively effected by first and
16 second voice coil actuators, each comprising a pair of magnets and at least one coil to
17 which current is supplied. The amplitude and direction of the current supplied to the
18 coil determines the speed and direction of rotation of the camera. The second voice coil
19 actuator preferably includes a coil assembly comprising two opposed coils. This design
20 overcomes the angular range limitations associated with prior art voice coil actuators
21 and enables rotation of the camera about an extended angular range. The device can be
22 advantageously utilized for adjustment of the pan and tilt angles of a video camera in a
23 conferencing system.